

20-8699.



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D3078-041
Job Sheet 213674



DAS
24
9-89

Part No: D3078-041

Job Qty: 4 pcs

Part Name: Step Assembly, Hi Short LH



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/1/20

Job Tracking No:

Created By: Jennifer Renwick

Due Date: 11/20/20

Description: SIOP

Type: Stock

Note: DWG REV B IPP REV:A 15.11.12 NEW ISSUE DD VERF:JLM IPP REV:B 16.03.15 DWG REV.B DD
VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Large Fab - Welded Assy-1	4 pcs			0.00	4.00	Large Fab - 1		11 10-30
							Large Fab - 10		
							Large Fab - 2		
							Large Fab - 3		
							Large Fab - 4		
							Large Fab - 5		
							Large Fab - 6		
							Large Fab - 7		
							Large Fab - 8		
							Large Fab - 9		
							Large Fab - 11 (Various)		
							Large Fab - 12		
120	QC 5	4 pcs			0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		
							QC 5 - 61		

ART

EROSPACE

Order No: S309719



3078 - 041

213674

No/Batch: S309719

ne: Various STC's

Date: 10/30/20

Dart Aerospace Ltd.
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DAS

24

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NOV 03 2020



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Container No: S309719



Part: D3078-041

Job No: 213674

Serial No/Batch: S309719

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 10/30/20

Plex 10/1/20 11:56 AM Dart.Renwick.Jennifer

130 Large Fab - Welded Assy-2-B4B	4 pcs	0.00 5.19	QC 5 - 81	
			QC 5 - 82	
			Large Fab - 1 - B4B	
			Large Fab - 10 - B4B	
			Large Fab - 2 - B4B	
			Large Fab - 3 - B4B	
			Large Fab - 4 - B4B	
			Large Fab - 5 - B4B	
			Large Fab - 6 - B4B	
			Large Fab - 7 - B4B	
			Large Fab - 8 - B4B	
			Large Fab - 9 - B4B	
			Large Fab - 11 - B4B (Various)	
			Large Fab - 12 - B4B	
140 QC 9	4 pcs	0.00 0.00	QC 9 - 10	
			QC 9 - 18	
			QC 9 - 24	
			QC 9 - 43	
			QC 9 - 50	
			QC 9 - 9	
150 QC 5	4 pcs	0.00 0.00	QC 5 - 10	
			QC 5 - 12	
			QC 5 - 17	
			QC 5 - 18	
			QC 5 - 19	
			QC 5 - 22	
			QC 5 - 24	
			QC 5 - 3	
			QC 5 - 43	
			QC 5 - 49	
			QC 5 - 51	
			QC 5 - 58	
			QC 5 - 68	
			QC 5 - 9	
			QC 5 - 50	
			QC 5 - 30	
			QC 5 - 40	
			QC 5 - 61	
			QC 5 - 81	
			QC 5 - 82	
160 Handfinish - 1-1 Chemical-B4B	4 pcs	0.00 0.47	Handfinish - 1 - 1 - B4B	
			Handfinish - 1 - 2 - B4B	
			Handfinish - 1 - 3 - B4B	
			Handfinish - 1 - 4 - B4B	
			Handfinish - 1 - 5 - B4B	
			Handfinish - 1 - 6 - B4B	
			Handfinish - 1 - 7 - B4B	
			Handfinish - 1 - 8 - B4B	
			Handfinish - 1 - 9 - B4B	
			Handfinish - 1 - 10 - B4B	
			Handfinish - 1 - 11 - B4B	
			Handfinish - 1 - 12 - B4B	
			Handfinish - 1 - 13 - B4B	
			Handfinish - 1 - 14 - B4B	
			Handfinish - 1 - 15 - B4B	
			Handfinish - 1 - 16 - B4B	
			Handfinish - 1 - 17 - B4B	
			Handfinish - 1 - 18 - B4B	

			Handfinish - 1 - 19 - B4B	
			Handfinish - 1 - 20 - B4B	
			Handfinish - 1 - 21 - B4B	
			Handfinish - 1 - 22 - B4B	
170 QC 7	4 pcs	0.00 0.00	QC 7 - 10	
			QC 7 - 13	
			QC 7 - 14	
			QC 7 - 15	
			QC 7 - 17	
			QC 7 - 18	
			QC 7 - 19	
			QC 7 - 2	
			QC 7 - 28	
			QC 7 - 3	
			QC 7 - 30	
			QC 7 - 34	
			QC 7 - 36	
			QC 7 - 37	
			QC 7 - 41	
			QC 7 - 47	
			QC 7 - 48	
			QC 7 - 51	
			QC 7 - 58	
			QC 7 - 59	
			QC 7 - 60	
			QC 7 - 9	
			QC 7 - 68	
			QC 7 - 50	
			QC 7 - 67	
			QC 7 - 40	
			QC 7 - 24	
			QC 7 - 43	
			QC 7 - 61	
			QC 7 - 81	
			QC 7 - 76	
			QC 7 - 79	
			QC 7 - 83	
			QC 7 - 82	
			QC 7 - 87	
200 Large Fab - Welded Assy-3-B4B	4 pcs	0.00 4.04	Large Fab - 1 - B4B	
			Large Fab - 10 - B4B	
			Large Fab - 2 - B4B	
			Large Fab - 3 - B4B	
			Large Fab - 4 - B4B	
			Large Fab - 5 - B4B	
			Large Fab - 6 - B4B	
			Large Fab - 7 - B4B	
			Large Fab - 8 - B4B	
			Large Fab - 9 - B4B	
			Large Fab - 11 - B4B (Various)	
			Large Fab - 12 - B4B	
210 QC 10	4 pcs	0.00 0.00	QC 10 - 10	
			QC 10 - 18	
			QC 10 - 24	
			QC 10 - 43	
			QC 10 - 50	
			QC 10 - 58	
			QC 10 - 9	

220 QC 5	4 pcs	0.00 0.00	QC 10 - 68	
			QC 10 - 81	
			QC 5 - 10	
			QC 5 - 12	
			QC 5 - 17	
			QC 5 - 18	
			QC 5 - 19	
			QC 5 - 22	
			QC 5 - 24	
			QC 5 - 3	
			QC 5 - 43	
			QC 5 - 49	
			QC 5 - 51	
			QC 5 - 58	
			QC 5 - 68	
			QC 5 - 9	
			QC 5 - 50	
			QC 5 - 30	
			QC 5 - 40	
			QC 5 - 61	
			QC 5 - 81	
			QC 5 - 82	
240 Handfinish - 6-1- Touch Up- B4B	4 pcs	0.00 0.47	Handfinish - 6 - 1 - B4B	
			Handfinish - 6 - 2 - B4B	
			Handfinish - 6 - 3 - B4B	
			Handfinish - 6 - 4 - B4B	
			Handfinish - 6 - 5 - B4B	
			Handfinish - 6 - 6 - B4B	
			Handfinish - 6 - 7 - B4B	
			Handfinish - 6 - 8 - B4B	
			Handfinish - 6 - 9 - B4B	
			Handfinish - 6 - 10 - B4B	
			Handfinish - 6 - 11 - B4B	
			Handfinish - 6 - 12 - B4B	
			Handfinish - 6 - 13 - B4B	
			Handfinish - 6 - 14 - B4B	
			Handfinish - 6 - 15 - B4B	
			Handfinish - 6 - 16 - B4B	
			Handfinish - 6 - 17 - B4B	
			Handfinish - 6 - 18 - B4B	
			Handfinish - 6 - 19 - B4B	
			Handfinish - 6 - 20 - B4B	
			Handfinish - 6 - 21 - B4B	
			Handfinish - 6 - 22 - B4B	
250 Powdercoat - 1 White GI(A)- B4B	4 pcs	0.00 0.91	Powdercoat - 1 - B4B	
			Powdercoat - 2 - B4B	
			Powdercoat - 3 - B4B	
			Powdercoat - 4 - B4B	
			Powdercoat - 5 - B4B	
			Powdercoat - 6 - B4B	
			Powdercoat - 7 - B4B	
			Powdercoat - 8 - B4B	
			Powdercoat - 9 - B4B	
			Powdercoat - 10 - B4B	
260 Handfinish - 3-1- WingWalk- B4B	4 pcs	0.00 0.47	Handfinish - 3 - 1 - B4B	
			Handfinish - 3 - 2 - B4B	
			Handfinish - 3 - 3 - B4B	
			Handfinish - 3 - 4 - B4B	
			Handfinish - 3 - 5 - B4B	

270 QC 3

4
pcs

0.00 0.00

QC 3 - 10

QC 3 - 13

QC 3 - 15

QC 3 - 17

QC 3 - 18

QC 3 - 2

QC 3 - 28

QC 3 - 3

QC 3 - 30

QC 3 - 34

QC 3 - 36

QC 3 - 41

QC 3 - 51

QC 3 - 58

QC 3 - 59

QC 3 - 68

QC 3 - 9

QC 3 - 40

QC 3 - 19

QC 3 - 43

QC 3 - 24

QC 3 - 61

QC 3 - 81

QC 3 - 82

QC 3 - 87

QC 3 - 47

290 Packaging 3-1 - Stock - B4B

4
pcs

0.00 0.00

Packaging 3 - 1 - B4B

Packaging 3 - 2 - B4B

Packaging 3 - 3 - B4B

Packaging 3 - 4 - B4B

Packaging 3 - 5 - B4B

Packaging 3 - 6 - B4B

Packaging 3 - 7 - B4B

Packaging 3 - 8 - B4B

Packaging 3 - 9 - B4B

Packaging 3 - 10 - B4B

Packaging 3 - 11 - B4B

Packaging 3 - 12 - B4B

Packaging 3 - 13 - B4B

Packaging 3 - 14 - B4B

Packaging 3 - 15 - B4B

Packaging 3 - 16 - B4B

Packaging 3 - 17 - B4B

Packaging 3 - 18 - B4B

Packaging 3 - 19 - B4B

Packaging 3 - 20 - B4B

Packaging 3 - 21 - B4B

Packaging 3 - 22 - B4B

Packaging 3 - 23 - B4B

Packaging 3 - 24 - B4B

Packaging 3 - 25 - B4B

Packaging 3 - 26 - B4B

Packaging 3 - 27 - B4B

Packaging 3 - 28 - B4B

Packaging 3 - 29 - B4B

Packaging 3 - 30 - B4B

Packaging 3 - 31 - B4B

Packaging 3 - 32 - B4B

Packaging 3 - 33 - B4B

300 QC 21 - SA	4 pcs	0.00 0.00	Packaging 3 - 34 - B4B	
			Packaging 3 - 35 - B4B	
			Packaging 3 - 36 - B4B	
			Packaging 3 - 37 - B4B	
			QC 21 - SA - 21	
			QC 21 - SA - 70	
			QC 21 - SA - 9	
			QC 21 - SA - 77	
			QC 21 - SA - 28	

Part Op 110 - (Fabricate per Drwg) 1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078 2-Drill extrusion as per Dwg Descriptions: D3078 using Jig DT8680 for rivets. 3-Debur & buff scratches

120 - QC5- Inspect part completeness to step on W/O

130 - (Weld per dwg A/R Aluminum rod Batch: 139089) 1-Bevel end for welding FWD ONLY 2-Weld Support, weld Fwd End Plate as per QSI 004 & Dwg D3072 A/R Aluminum Rod 139089 3-Grind End Plate flush

140 - (QC9- Inspect visual per QSI004- Fusion Welds)

150 - QC5- Inspect part completeness to step on W/O

160 - (Chemical Conversion Coat per QSI005 4.1)

170 - (QC7-Inspect Chemical Conversion Coat)

200 - (Weld per dwg A/R Aluminum rod Batch: 139089) 1- Rivet Leg Assembly as per Dwg D3078. 2-Bevel Aft end for welding 3-Inspect for foreign object as per QSI 024 4-Weld Aft End Plate as per QSI 004 & Dwg D3078 A/R Aluminum Rod 139089 5-Grind End Plate flush

210 - (QC10- Inspect visual per QSI004- ground welds)

220 - (QC5- Inspect part completeness to step on W/O)

240 - (Touch up alodine)

250 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____

260 - (Wing Walk as per dwg QSI005 4.4 Batch _____)

270 - (QC3- Inspect Part Finish)

290 - (Identify as per dwg & Stock Location: _____)

300 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2622-120C	Step Extrusion	2 pcs (.5 ea)	110-Large Fab - Welded Assy-1	5269726
D3067-1	End Plate	8 pcs (2 ea)	130-Large Fab - Welded Assy-2- B4B	52839522
D3219-3	Plate	8 pcs (2 ea)	130-Large Fab - Welded Assy-2- B4B	5229367
D3065-041	Step Leg Assembly	4 pcs (1 ea)	200-Large Fab - Welded Assy-3- B4B	
D3066-1	Spacer	8 pcs (2 ea)	200-Large Fab - Welded Assy-3- B4B	
MS20600-AD4W4	Rivet	64 Ea (16 ea)	200-Large Fab - Welded Assy-3- B4B	

Job Allocations

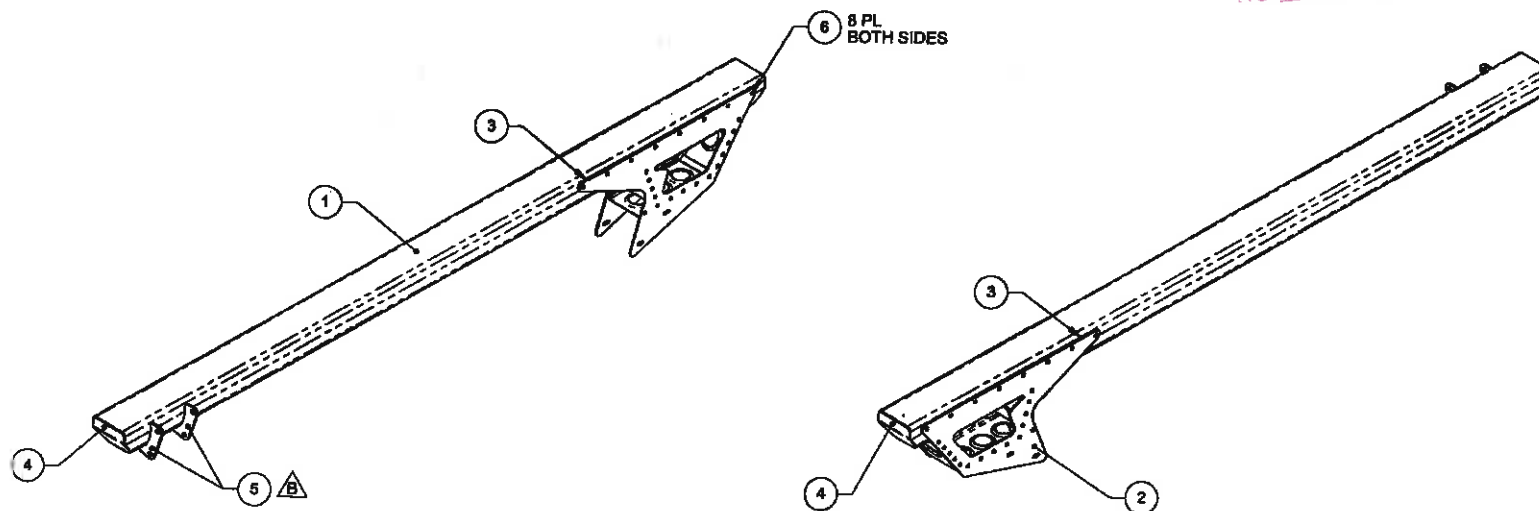
Operation	Component Part	Required	Inventory	Allocated
110-Large Fab - Welded Assy-1	D2622-120C	2	166	0
130-Large Fab - Welded Assy-2- B4B	D3067-1	8	86	0
	D3219-3	8	26	0
200-Large Fab - Welded Assy-3- B4B	D3065-041	4	3	0
	D3066-1	8	83	0
	MS20600-AD4W4	64	638	0

Part Specifications

Specifications could not be found.

Plex 10/1/20 11:56 AM Dart.Renwick.Jennifer

ITEM	QTY	P/N	DESCRIPTION
	X	D3078-041	STEP ASSEMBLY, HIGH SHORT (LH)
1	1	D2822-080	STEP EXTRUSION
2	1	D3065-041	STEP LEG ASSEMBLY
3	2	D3066-1	SPACER
4	2	D3067-1	END PLATE
5	2	D3219-3	PLATE
6	16	MS20600AD4W4	RIVET, BLIND



D3078-041 STEP ASSEMBLY, HI SHORT (LH)

NOTES:

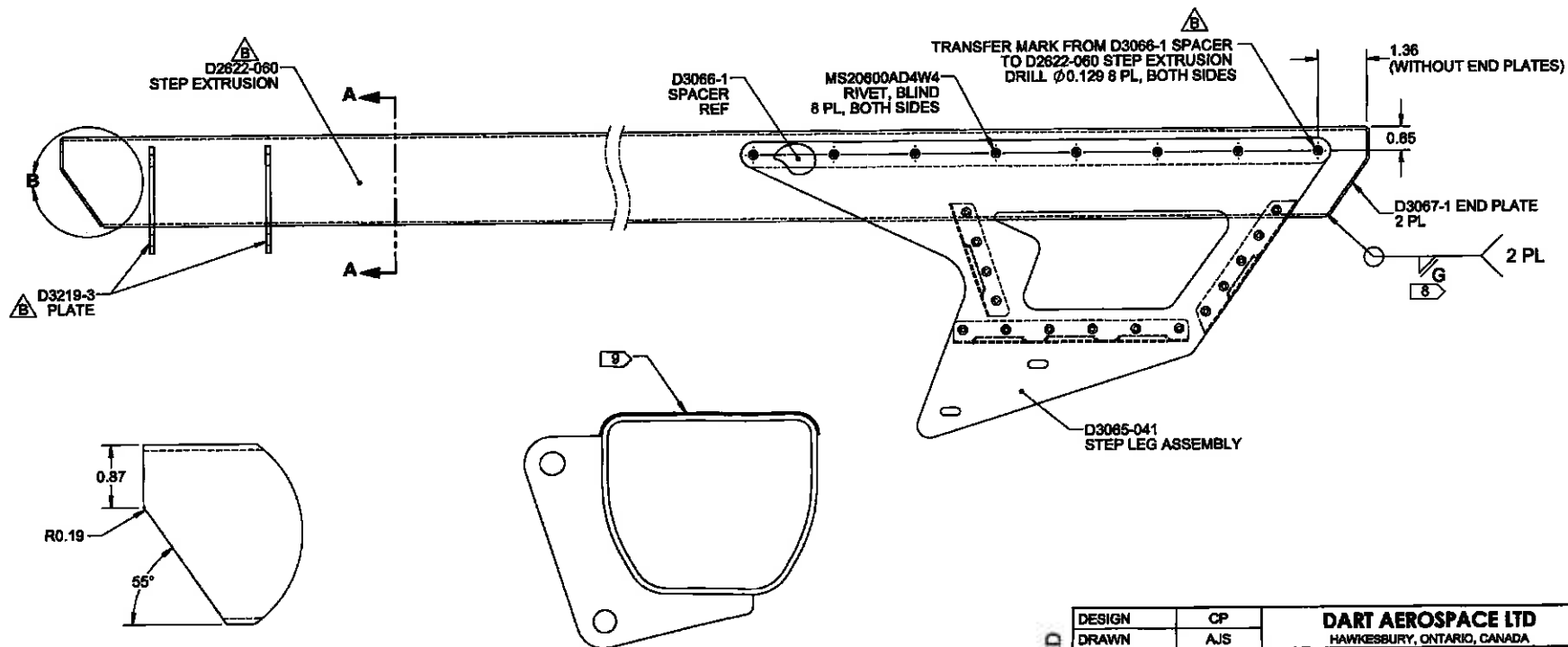
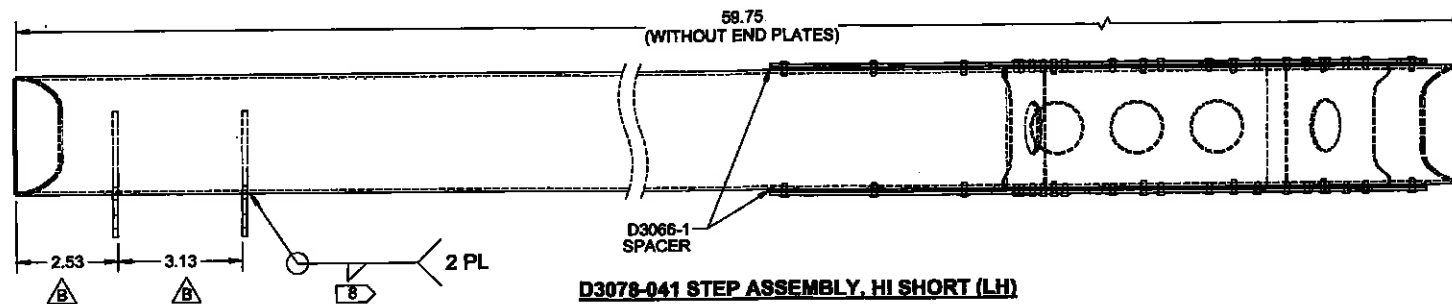
- 1) MATERIAL: NONE
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: PER QSI 044
- 7) WEIGHT: 5.79 lbs
- 8) WELD PER DART QSI 004
- 9) APPLY BLACK ANTI-SKID PAINT ON THE TOP SURFACE TO THE BOTTOM OF THE TOP RADI AS SHOWN PER DART QSI 005 4.4

RELEASED
2016-03-14
ECN 16-466

APPROVED

B	REDRAWN AND REFORMATED, REPLACED D3063-1 QTY 1 WITH D3219-3 QTY 2. SEE CIR 15-44, PART NUMBER FOR ITEM 1 WAS D2822-80. TRANSFER DRILL CHANGED FROM D3065-041 TO D3066-1.	AJS	15.11.04
A	NEW ISSUE	CP	02.08.11
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. B
MFG. APPR.	JLM	D3078	SHEET 1 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STEP ASSEMBLY, HI SHORT	NTS
DATE	15.11.04	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.	

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 213674



DETAIL B
2 PL
D3067-1 END PLATE NOT SHOWN
SCALE 2X

SECTION A-A
SCALE 2X

RELEASED
2016-03-14

APPROVED

DESIGN	CP	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. B
MFG. APPR.	JLM	D3078	SHEET 2 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STEP ASSEMBLY, HI SHORT	NTS
DATE	15.11.04	COPYRIGHT © 2002 BY DART AEROSPACE LTD	
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Entered: JR Date: NOV 30 2020

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



NCR No. 20-8669

Route update only ☐

Job: <u>213674</u>		DISPOSITION		DEPARTMENT/PROCESS			
Part No. <u>D3078-041</u>		Rework ☐	Skid-tube ☐	Cross tube ☐	Eng. (Non-AW) ☐	Engineering ☐	
		Scrap ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Water Jet ☐	
		Use-as-is ☐	Large Fab ☒	Finishing ☐	Rec/Store/Packaging ☐	Supplier Quality ☐	
Date: <u>NOV 26 2020</u>		Sequence #: <u>110</u>		QTY Affected: <u>4</u>		MRB (QSI042)	
Description Work Order Deviation		Disposition				Completed By	
<u>employee cut 45° end cap and should be A35°</u>		<u>Scrap & DESTROY</u>				<u>DAS 24 9-89 20-11-26</u>	
						Lead hand / Supervisor	
						<u>NOV 26 2020</u> <u>DAS 24 9-89</u>	
						QC / QA Coordinator	
						<u>DAS 9 9-89 20-11-26</u>	
Root Cause		FAULT CATEGORY					
Operator ☒	Pressure/Forced ☐	Contamination ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Manufacturing Process ☐	Bending ☐	Misaligned/off center ☐	Folio/Program ☐	Outside Tolerance ☐			
Equip/Tooling ☐	Crushing ☐	BOM/Route ☐	Grain Direction ☐	Drawing ☐			
Handling/Preservation ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Finish ☐			
Material ☐	Crimp/Kink/Ripple/Wave/Twist ☐	Incomplete/Unclear Instructions ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Product Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Out of Sequence ☐	☒ Misread			
Process Improvement ☐	Mislabeled ☐	Fit/Function ☐	Off-set/Set-up ☐				
Human Factors ☐	Other/Details:						